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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 10/553,561 | 08/10/2006 | Attila Haraszti | 200311439-3 | 2048 |

22879 7590 11/16/2007

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| EXAMINER | |
|---|---|
| LABAZE, EDWYN | |
| **ART UNIT** | **PAPER NUMBER** |
| 2876 | |

| MAIL DATE | DELIVERY MODE |
|---|---|
| 11/16/2007 | PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/553,561 | HARASZTI ET AL. | |
| | Examiner | Art Unit | |
| | EDWYN LABAZE | 2876 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *10 August 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9 and 13-28* is/are rejected.

7)☒ Claim(s) *10-13 and 29* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *10 August 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *10/19/2005,9/21/2007*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

1. Receipt is acknowledged of IDS filed on 10/19/2005 and 9/21/2007.

2. Receipt is acknowledged of preliminary amendments filed on 11/30/2006.

3. Claims 1-29 {including new claims new claims 26-29} are presented for examination.

4. This application is a 371of PCT/EP04/04538 filed on 04/29/2004.

### *Priority*

5. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### *Claim Objections*

6. Claims 1, 14-15, 20, 21-22 are objected to because of the following informalities:

Re claims 1 (page 18, line 12): There is no antecedent basis for the limitation "the positions". The applicant is respectfully requested to substitute "the positions" with "positions".

Re claims 15, 20, 21, and 22: Substitute "the positions" with "positions".

Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-9 and 14-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Kaish et al. (U.S. 5,974,150).

Re claims 1, 15, and 20-24: Kaish et al. discloses system and method for authentication of goods, which includes means of receiving an authentication code {herein a private key} (col.11, lines 25-27; col.12, lines 49-62; col.23, lines 4-18), determining if particles {herein dichroic fibers 3, as shown in fig. # 1} are distributed within the object in a three-dimensional pattern by checking if the object is retro-reflective (col.14, lines 10-20; col.22, lines 58-67), determining the positions of particles being distributed in an object (col.11, lines 34-67; col.12, lines 63-67), using of the positions {herein the markings are encrypted, using an encoder, to include a code that identifies the object} to provide a check-code (col.25, lines 1-6), using the check-code and the authentication-code {herein through the authentication device, as shown in fig.# 4B} to determine the authenticity of the object (col.24, lines 63-67; col.26, lines 28-48).

Kaish et al. further teaches an optical sensor (col.24, lines 26-33; col.25, lines 50-60), a measurement component for determining the positions of particles, which includes an image processing component to determine position in two dimensions (col.9, lines 21-62; col.16, lines 45-67; col.18, lines 36-45).

Re claims 2, 16: Kaish et al. teaches a system and method, further comprising determining if the particles are distributed within the object in a three-dimensional pattern, whereby the positions of the particles are determined using a two-dimensional image of the object (col.14, lines 10-20).

Re claim 3: Kaish et al. discloses a system and method, acquiring of a first image of the object with a first angle of illumination {herein CCD2 provides a parallel-polarized light}, acquiring a second image of the object with a second angle of illumination {herein CCD1 provides a perpendicular-polarized light}, combining the first and second images {herein the sum of D1 and D2, each from a different angle, will also be compared against a threshold value}, determining if a geometrical artefact is present in the combined images (see fig.# 2; col.23, lines 30-67; col.24, lines 1-25).

Re claims 4, 17, 25: Kaish et al. discloses a system and method, wherein the determination if the particles are distributed in a three-dimensional pattern is made by determining if the object is reflective (col.14, lines 10-20; col.22, lines 47-67; col.23, lines 1-17).

Re claim 5: Kaish et al. teaches a system and method, wherein it is determined whether the object is reflective by acquiring a first image with diffuse illumination of the object and acquiring a second image with direct illumination of the object and comparing a brightness of the object in the first and second images {hereinKaish et al. teaches an algorithm wherein D2 is the intensity of the parallel-polarized light and D1 is the intensity of the perpendicular-polarized light. The absolute value of the signal is compared with a threshold value} (col.23, lines 65-67; col.24, lines 1-33).

Re claims 6 and 26: Kaish et al. discloses a system and method, with means of illuminating of the object with diffuse, white light {herein ambient light} (col.15, lines 20-28), detecting light reflected from the object and light transmitted through the object, and determining, if the reflected light and the transmitted light have complementary colors (col.17, lines 43-67; col.18, lines 1-54).

Re claims 7, 18-19, and 27: Kaish et al. teaches a system and method, acquiring an image of the object in a read position, determining a dislocation {herein interpreted as variations, herein dye intensity variation over length, or optical polarization angle variation over length} of the read position with respect to a reference position by detecting marker positions in the image, and performing a projective transformation of the image for compensation of the dislocation (col.17, lines 63-67; col.18, lines 1-45).

Re claims 8-9 and 28: Kaish et al. teaches a system and method, which includes means of determining the positions of the particles, using of the positions to provide the check code and, whereby the positions of the particles are determined using a two-dimensional image of the object and whereby the check code is provided by encoding of the positions (col.16, lines 51-67; col.17, lines 43-62; col.23, lines 4-18).

Re claim 14: Kaish et al. discloses a system and method, further comprising providing position data descriptive of the determined positions, and wherein the check-code is provided by encoding the position data by means of a hashing method {herein using the RSA public key-private key algorithm} (col.23, lines 4-18).

***Allowable Subject Matter***

9. Claims 10-13 and 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. The following is a statement of reasons for the indication of allowable subject matter: the prior art of record, taken alone or in combination with any other references, fails to specifically

teach means of determining of polynomial based on the positions, wherein the encoding of the positions is performed by dividing the polynomial by a generator. These limitations in conjunction with other limitations in the claimed invention were not shown by the prior art of record.

***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Seul et al. (U.S. 7,156,315) discloses encoded random arrays and matrices.

Durst et al. (U.S. 7,162,035) teaches authentication method and system.

Farrall et al. (US 2004/0112962) teaches security, identification and verification systems.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to EDWYN LABAZE whose telephone number is (571) 272-2395. The examiner can normally be reached on 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on (571) 272-2398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

el
Edwyn Labaze
Patent Examiner
Art Unit 2876
November 9, 2007